25 June 1982

A Description of 4C

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- The Community-wide Computer-assisted Compartmentation Control System (4C) will be:
 - An on-line Information Storage and Retrieval System for storing and retrieving information concerning Sensitive Compartmented Information (SCI) accesses held by people under the cognizance of all Intelligence Community (IC) organizations.
 - A secure Communications System, for sending and receiving information to and from the data base, and formatted or free-form messages from terminal to terminal within the system.
 - c. A Management Information System, providing information from a single data base needed to manage, administer and operate SCI programs as required by the DCI, IC managers, managers of NFIB organizations and by supervisors (at all levels) responsible for operation of SCI programs and activities.
- It will be a dedicated system, on-line throughout the IC to major adjudicators, recordkeepers and certifiers of SCI accesses. The system will permit timely storage of information concerning the granting or termination of accesses, and retrieval in a few seconds of such information at locations where it is most needed.

A Description of the existing IC System (as of June 1982)

- The existing system is made up of many independent and incompatible parts. There is no single data base containing information on all accesses held by all people who participate in SCI activities.
 - a. The major NFIB organizations maintain automated systems to keep records on their own people, but some of these systems are out-of-date, based on punched-card technology, and most are not on-line to their major points of recordable actions. Thus, in many cases, it is extremely difficult and time-consuming to obtain an authentic "certification" of an access held by a person in another organization.

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b. A 4C prototype is now in operation within CIA. The CIA is currently maintaining records of individuals under CIA's SCI security cognizance (CIA employees, employees of CIA contractors, employees of non-NFIB agencies/departments, and of the Executive and Legislative Branches). Also, the CIA is maintaining records for Energy, FBI, Justice, Secret Service, State and Treasury until these organizations are linked to the system.

c. Communications

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- In the existing system "certifications" and other messages between SCI recordkeepers, adjudicators and certifiers often follow tortuous routes and take There is no Community-wide communications much time. network dedicated to the validation/certification of SCI accesses with input/output points in the areas (of SCI Adjudicators, Recordkeepers or Certifiers) where the information is available or where it is used. Each day several hundred validation/certification messages arrive at the point of action after a considerable number of people and off-line communications systems have been used. Typically, an SCI recordkeeper in one organization will validate an individual's clearances, type the necessary information in cable format, send it via courier to a point where cables are sent to other organizations. There the typed cable is controlled, processed and transmitted to the cable receiving point of addressee, where it is controlled, processed and sent by courier to the addressee. Our present system of transmitting SCI Access information to the "point of use" is labor-intensive and slow; and unnecessarily creates the need for and utilization of resources in support components (commo and courier) of the sending and receiving organizations.
- (2) When time requirements preclude the use of cables, validations/certifications are transmitted via telephone directly to the "point of use." Such transmissions are subject to the vagaries -- and availability -- of secure voice systems; or require particular attention to security considerations when using black telephones.
- d. Management Information. With the existing IC system it is impossible to acquire an accurate figure for the total number of people who hold SI (or any specific access) as of a specific date. Very often the same person will be on record in two or more NFIB systems with the same access(es).

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In order to obtain global statistics, dozens of independent	
systems must be canvassed. Usually, statistics will be provided by the different organizations based on reports with differing "as of" dates. This is but one example of an elementary requirement for management information that the existing IC system cannot satisfy.	25X1
C. Expansion of on-Line Access	
1. The 4C System will cause <u>no</u> increase in the number of people who have access to information concerning people who hold "Special Clearances." The changes will be:	
a. <u>In the Method of Storage</u> . The information will be in one complete, centralized registry as opposed to dozens of incomplete registries.	
b. In the method of Transmitting Information. Instead of "people intervention" and the use of cables, or telephones, to transmit information, most recipients will use a terminal and retrieve the needed information directly from the centralized registry (4C).	÷
2. At the present time each NFIB organization provides others with lists of people who are authorized to "pass certifications." The majority of people now on such lists will be provided a password for accessing 4C directly.	25X1
D. <u>Protective Features of 4C</u>	
1. From its inception, 4C has been designed with a primary objective of protecting the information from people who do not need it, and providing the information to those who will use it for improving the security of SCI programs.	25X1
2. The 4C computer will be a dedicated computer. It will contain only 4C data. There will be no electronic connections with another system.	
3. The 4C data base will be divided into a "Community File" and several "Private Files." "Private Files" will hold records of people who are under cover, people who are working directly or indirectly under an organization whose existence is classified, or people who hold especially sensitive "clearances" and/or are employed by organizations whose participation in Intelligence activities is sensitive. The system will be designed as that are the transmitted to the "community of the system will be designed as that are transmitted."	
be designed so that only those people with the "need-to-know" will have access to information in the "Private File."	25X1

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- 4. Each authorized on-line 4C user will be issued a sign-on protocol which will require specification of the data base, the organization, the "user-ID" and the user's password.
- 5. Once the system grants access to an authorized user, the system will accept only data presented in a "menu" format. The computer will not obey instructions which are not in a standard format. Thus, a user's ability to store or retrieve data will be limited to the standard activities pre-defined as required by that user.

of attempted illegal signors, and highlighting abnormalities from expected usage of the system.

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- 7. All information transferred between the computer and terminals, or between terminals, will be encrypted.
- 8. The 4C computer and each terminal will be located in an accredited SCI facility, which insures optimum physical security safeguards. All terminals will be tempest approved. All personnel with access will have been investigated and adjudicated under DCID 1/14 standards.
- 9. The classification and SCI control system for the totality of information in the 4C data base is yet to be determined by a 4C Rules and Procedures Group. It is expected to be no less than
- 10. All reports containing 4C data, will be generated within accredited facilities, and will be appropriately marked, wrapped, receipted, distributed, used and destroyed under proper controls.

E. Why the System is Being Changed

- 1. The need for a 4C-type system was stated, initially, by such SCI management organizations as the SIGINT Committee and COMERIX. As the numbers of organizations and individuals involved in SCI increased, the managers found it increasingly difficult to obtain timely and reliable information needed for purposes of management and control.
- 2. As the different operating organizations participated in 4C feasibility studies (in 1972 and 1978), it became apparent that a 4C-type system could improve the efficiency and effectiveness of their operations.

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3. In 1972 and 1978 there was a consensus that the IC should develop a 4C-type system, but money was not made available. In FY-81 money needed to establish 4C, was made available from the IC budget and the money has been obligated for development and installation of the system.

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4. The 4C System has replaced the old CIA system, and is designed to replace automated systems currently maintained by Air Force, Army, DIA, Navy, Naval Security Group, PME-106, and SAFSP. One system with standard hardware, communications equipment and software, will replace the eight automated systems. We are confident that the cost of 4C will be less than the total costs of the existing systems. Efforts to quantify the savings have been unsuccessful because "experts" disagree on methods for computing costs of existing systems. Improvements in security will result from 4C's encrypted commo directly to points of use, and from more current, accurate and complete information in the data base ----- factors which will also improve operating efficiency.

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5. We plan for an Initial Operational Capability (10c) for the 4C system in March 1983. At that time, the smaller civilian NFIB agencies (Justice, time, the smaller civilian NFIB agencies (Justice, Treasury, State, Energy) will be linked to the system, with the larger DoD departments system, with the larger DoD departments joining incrementally in succeeding months. The attached photograph, taken 21 Oct 1982, slows the almost completed frame room at CIA they (Room 1A10) which will house the 4C dedicated hair frame computer.

APEX - 4C	
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The Community-wide, Computer-assisted Compartmentation Control System (4C) is projected to provide a centralized, real time electronic data base that lists all personnel with compartmented (SCI) access approvals as well as a register of all facilities, both governmental and industrial, approved to store compartmented material.

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There currently exists no single record system which reflects this type of information. The closest approximation to such a system is the data base called SPECLE (Special Clearances) maintained by CIA's Office of Security which has over 160,000 names of SCI accessed personnel Community-wide, but which is admittedly incomplete and outdated. 4C is designed to be a Community data base that will replace the existing computerized records of NFIB member agencies (SPECLE, DIA, Army, Navy, Air Force, etc.) and allow member agencies to input the data base (add, change, delete) from their own terminals as well as to communicate on the 4C encrypted data It should result in more efficient use of already SCI approved contractor personnel (thus obviating expensive and duplicative background investigations), facilitate the passage of clearance certifications, eliminate thousands of cables now sent over other communication links each year, and allow more efficient use of approved facilities. savings to be realized in freeing existing smaller computer systems for other uses are diffcult to quantify but will be substantial. 4C will also have an archival capability whereby records of formerly accessed but now debriefed personnel will be maintained within the 4C system. the current systems possess such capabilities. This will prove a valuable tool in counterintelligence and damage assessment investigations.

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This project began in FY80 with minor developmental costs incurred. The major dollar costs are projected to occur in FY81 with acquisition of major system components and the subsequent installation hook-up of these components. FY82 will see continuing development, installation and start-up costs as well as some maintenance and operational costs. Because of the phased implementation schedule for the entire system, these costs will continue through FY85, although at a reduced level.

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